

WHAT IS CLAIMED IS:

1. A switch comprising:

a switch body including a connector portion;
an insulation displacement connector on the connector portion, the insulation displacement connector having two tines with an open ended slot therebetween for receiving a wire transverse to the slot, and sufficiently close together to displace insulation from such a wire pressed into the slot along the length of the slot and make electrical contact with the wire; and

an insulating flap hinged to the switch body, the flap having an open position, a catch position beyond the open end of the slot, and a latched position with a portion straddling the slot and securing a wire in the slot.

2. A switch according to claim 1 wherein the hinge, flap and switch body are integrally molded plastic.

3. A switch according to claim 1 further comprising guide means for aligning the flap and body.

4. A switch comprising:

a switch body including a connector portion;
an insulation displacement connector on the connector portion; and

an insulating flap hinged to the switch body, the flap having an open position, a latched position parallel to the connector portion and an intermediate catch position with the flap at an acute angle in the range of from about 10 to 20 degrees from the connector portion.

5. A switch comprising:

a switch body including a connector portion;
an insulation displacement connector on the connector portion, the insulation displacement connector having two tines with an open ended slot therebetween for receiving a wire transverse to the slot, and sufficiently close together to displace insulation from such a wire pressed into the slot along the length of the slot and make electrical contact with the wire; and

an insulating flap hinged to the switch body, the axis of the hinge being parallel to such a wire in the slot.

6. A switch according to claim 5 wherein the hinge, flap and switch body are integrally molded plastic.

7. A switch according to claim 5 further comprising guide means for aligning the flap and body.

8. A switch comprising:

a switch body including a connector portion;
an insulation displacement connector on the connector portion;
an insulating flap hinged to the switch body; and
a guide member between the flap and connector portion.

9. A switch according to claim 8 wherein the guide member is adjacent to the hinge.

10. A switch according to claim 8 wherein the guide member comprises a pin on one of the connector portion and the flap and a hole aligned with the pin on the other of the flap and connection portion.

11. A switch according to claim 8 wherein the guide member comprises a pair of wings on the connector portion straddling edges of the flap adjacent to the hinge.

12. A switch comprising:

a switch body including a connector portion;
an insulation displacement connector on the connector portion; and
an insulating flap hinged to the switch body, a hook on the connector portion, a first shoulder on the flap located to engage the hook in a first position and a second shoulder on the flap located to engage the hook in a second position.

13. A switch according to claim 12 wherein the hook is on a flexible arm.

14 A switch comprising:

a switch body including a connector portion;
an insulation displacement connector on the connector portion, the insulation displacement connector having two tines with an open ended slot therebetween for receiving a wire transverse to the slot, and sufficiently close together to displace insulation from such a wire pressed into the slot along the length of the slot and make electrical contact with the wire; and

an insulating flap hinged to the switch body, including a rounded groove inside the flap extending parallel to such a wire in the slot.

15. A switch according to claim 14 further comprising a slit in the flap aligned with the insulation displacement connector when the flap is in a latched position approximately parallel

to the switch body, the edges of the slit straddling the insulation displacement connector for pressing a wire into the slot between two tines.

16. A switch comprising:

a switch body including a connector portion;
an insulation displacement connector on the connector portion, the insulation displacement connector having two tines with an open ended slot therebetween for receiving a wire transverse to the slot, and sufficiently close together to displace insulation from such a wire pressed into the slot along the length of the slot and make electrical contact with the wire; and

an extension on the end of each of the tines, the extensions meeting beyond the open end of the slot to form a guide opening for wire adjacent the open end of the slot.

17. A switch comprising:

a switch body including a connector portion;
an insulation displacement connector on the connector portion, the insulation displacement connector having two tines with an open ended slot therebetween for receiving a wire transverse to the slot, and sufficiently close together to displace insulation from such a wire pressed into the slot along the length of the slot and make electrical contact with the wire; and

an extension on the end of each of the tines, the extensions meeting beyond the open end of the slot to form a keyhole shaped opening.

18. A switch comprising:

a switch body including a connector portion;
at least a pair of insulation displacement connectors on the connector portion, each insulation displacement connector having two metal tines with an open ended slot therebetween for receiving a wire transverse to the slot, and sufficiently close together to displace insulation from such a wire pressed into the slot along the length of the slot and make electrical contact with the wire; and

an insulating flap hinged to the switch body, the hinge comprising a thin layer of plastic integral with the connector portion and the flap, the axis of the hinge being parallel to such a wire in the slot;

a pair of guide wings on the connector portion straddling edges of the flap adjacent to the hinge;

a guide pin on one of the connector portion and the flap, and an alignment hole on the other of the flap and connector portion for engaging the guide pin;

a hook on a flexible arm on the connector portion;

a first shoulder on the flap located to engage the hook in a latched position;

a second shoulder on the flap located to engage the hook in an intermediate position between the open position and the latched position;

a pair of rounded grooves inside the flap, each groove extending parallel to such a wire in the slot of one of the insulation displacement connectors and lying adjacent to the open end of the slot in the intermediate position of the flap;

a pair of slits in the flap aligned with the insulation displacement connectors when the flap is in the latched position, the edges of the slits straddling the respective

insulation displacement connectors for pressing a wire into the slot between two tines.

19. A switch according to claim 18 wherein the hinge, flap and switch body are integrally molded plastic.

20. A switch according to claim 18 wherein the flap has the general shape of an elongated trough, the slits being through the bottom of the trough.

21. A switch according to claim 18 wherein the flap has a generally U-shaped cross section transverse to its length, the slits being through the base of the U and the arms of the U stiffening the flap against bending and twisting.

22. A switch according to claim 18 further comprising an extension on the end of each of the tines, the extensions meeting beyond the open end of the slot to form a guide opening for wire adjacent the open end of the slot.